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Users Manual

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Program and Manual

Written by Steve Leonard

For The Commodore C-64 Computer

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Introduction

Welcome to the world of MIDI !!!

Mimetics Corp. is proud to offer DATA/7 as the first in a series of MIDI application software packages for the professional musician.

DATA/7 was developed to assist the owner of a Yamaha DX7 synthesizer coupled with an Commodore 64 computer in the development of instrument voices and to provide a large, high speed system in which to load and save both individual voices and banks of 32 voices.

DATA/7 provides the following capabilities...

* A full display of all parameters for any voice
* A full display of all function parameters such as portamento, controller information, etc...
* The ability to load or save voices, functions or banks to diskette.
* A 3 dimensional hi-res graphics display of all 7 envelopes for any voice.
* A SWAP feature to allow swapping positions of any two voices within a bank of 32 voices.
* A printer option to allow hardcopy printout of all voice and function parameters and a list of all 32 voices in a bank.

Setting Up

First, here's a list of the equipment you'll need to use the DATA/7 software :

1.) One Yamaha DX7 synthesizer
2.) A Commodore 64 computer
3.) One 5 1/4 inch disk drive
4.) A video monitor or television
5.) A Passport Designs or compatible MIDI Interface Card
6.) Two 5-pin DIN cables
7.) A copy of Mimetics DATA/7 software
8.) An audio monitoring system
9.) Some electricity !

Step 1

Turn the power off on the DX7 and the computer. To be absolutely sure you do not damage your equipment you may wish to unplug the power cables. If you fail to turn the equipment off before proceeding YOU MAY CAUSE SERIOUS DAMAGE TO YOUR GEAR costing you a lot of time and money !!!

Step 2

Connect the MIDI interface card to the coputer according to the directions included with the card.

Setting Up cont'd

Step 3

Connect the 5 pin DIN cable from the OUT connector of the Interface card to the MIDI IN connector on the back of the DX7. Connect The other 5 pin DIN cable from the IN connector of the Interface card to the MIDI OUT connector on the back of the DX7.

Step 4

Turn on your DX7 and set it up to receive on MIDI Ch. #1. If you're not sure how to do this see page 56 of your DX7 Owners Manual or follow the instructions below.

1.) Locate and press the orange colored button marked FUNCTION to the left and just below the LCD display on the DX7.
2.) Locate and press the FEEDBACK button (#8) once. The LCD display should read 'MIDI CH=1'. If it doesn't locate and press the -1 (NO/OFF) button just next to the DATA ENTRY slider and press it as many times as necessary until the LCD reads 'MIDI CH=1'.

3.) Now press the FEEDBACK (#8) button a second time. If the LCD reads 'SYS INFO AVAIL' then go to Step 5. Otherwise locate the +1 (YES/ON) button next to the DATA ENTRY slider and press it until the LCD reads 'SYS INFO AVAIL'.

Step 5

In order for the DX7 to be able to receive information from the computer THE MEMORY PROTECT MUST BE TURNED OFF !!!. It is not necessary to do this now but if you want to send voices or banks from the computer to the DX7 later on you will need to complete Step 5. The computer ALWAYS reads information from the DX7 (as long as the DX7 is actually sending something).

Locate and press the INTERNAL MEMORY PROTECT button located just above and to the left of the LCD display. The display will either read INTERNAL OFF or INTERNAL ON. To turn the memory protect off locate the -1 (NO/OFF) button and press it until the LCD reads INTERNAL OFF.

Step 6

Locate and press the INTERNAL MEMORY SELECT button just below and to the left of the LCD display until the LCD reads INTERNAL VOICE on the top line of the display.

NOW WE'RE READY TO POWER-UP THE COMPUTER !!!

1.) Insert the Mimetics DATA/7 diskette into the disk drive. The label on the diskette should be face up closest to you and the small oval cut-out on the bottom of the diskette should go into the disk drive first.

2.) Turn on the disk drive, computer, video monitor or T.V. and your audio system.

3.) Close the disk drive door.

4.) Type in the following line EXACTLY.

Load "DATA7",8,1

The disk will start to spin and the program will then load and run.

Here we go...

Using the Program

A. General Description

The DATA/7 software has several functions and modes of operation. First there are the PAGES. There are four PAGES or data display pages. PAGE 1 consists primarily of Operator Frequency and Mode Information, Envelope Rate and Level information, LFO and Miscellaneous information. PAGE 2 contains Pitch Envelope, Keyboard Level Scaling and Rate Scaling, Keyboard Velocity and Amplitude Modulation information. Page 3 contains the Function Parameter information such as Portamento Modes and Time, Mod Wheel, Breath, Foot Controller and After Touch information. Page 4 contains a 3 dimensional hi-resolution graphic display of all 7 envelopes contained in a DX7 voice.

Moving from PAGE to PAGE is accomplished by pressing the Up/Down or Left/Right CRSR keys on the computer keyboard. The <RETURN> key merely re-displays the current PAGE in the event that you are changing parameter values on the DX7 that are not sent out as MIDI data. A good example of this is the Data Entry Slider on the DX7. If you are changing the EG Rate for operator #1 for example by using the slider, the DX7 does not send out System Exclusive Data to let the computer know that that's what's going on. The +1 and -1 Data Entry buttons do however send a signal saying " I'm increasing or decreasing the value for this parameter".

The second main section of the DATA/7 software is the MENU. To get to the MENU at any time you simply press the <SPACEBAR> on the computer keyboard. This then allows you to access the disk drive for loading and saving voices, banks (32 voices) or functions to or from the disk or to transmit or receive voices, banks, or functions to and from the computer, Approximately 30 banks can be stored on the DATA/7 diskette. That's 30 times 32 voices or 960 sounds !!! Banks can be loaded into the DX7 or the computer within a matter of seconds !

There is also a routine which allows you to swap any 2 voices within a bank that is currently loaded in the computers memory and a section which allows you to printout all voice and function parameters for any voice and which voices are contained within a bank.

The Pages

1. Page 1

The following figure represents what is diplayed on the screen when you first 'boot' the diskette.

```
Voice:              Algorithm:0          Page 1
-----------------------------------------------
Oper.      EG Rate      EG Level       Oper.
#.       1  2  3  4    1  2  3  4    Out Lvl
-----------------------------------------------
 1
 2
 3
 4
 5
 6
-----------------------------------------------
Osc   Osc Osc Osc
Mode  F.C F.F D.T    LFO       Misc.
-----------------------------------------------
                     Spd       Osc Sync
                     Dly       Feedback
                     Pmd       Pmd Sens
                     Amd       Transpose
                     Sync
                     Wave
-----------------------------------------------
Hit Crsr-Up or Crsr-> to Change Page
Hit <Spacebar> for Menu Of Options
```

This is referred to as Page 1 in the system. It provides you with the Operator Frequency, Tuning, Envelope Rate and Depth information and LFO and Miscellaneous information.

The screen does not display any information until you select a voice on the DX7, hit the <RETURN> key on the computer, press the portamento pedal or hit a key between C and D# in the lowest octave of the DX7 clavier with the MOD wheel at 100%. If you select a voice on the DX7 and the display does not show the correct information go back to the chapter on Setting Up and check to see that everything is in order.

This manual will not attempt to go into the specific parameters or their corresponding values. If you need more information regarding the parameters please refer to your DX7 owners manual for descriptions and clarifications.

2. Page 2

The following figure represents what is displayed on the screen when you have selected Page 2.

```
Voice:Flute 1    Algorithm:1      Page 2
-----------------------------------------
      Pitch Rate   Pitch Level
      1  2  3  4   1  2  3  4
-----------------------------------------

-----------------------------------------
Operator:      1   2   3   4   5   6
-----------------------------------------
Break Pt:
L Depth:
R Depth:
L Curve:
R Curve:
Rate Scale:
AMD Sens:
Key Vel Sens:
-----------------------------------------


Hit Crsr-Up or Crsr-> to Change Page
Hit <Spacebar> for Menu Of Options
```

This is referred to as Page 2 in the system. It provides you with the information pertaining to pitch and level of the Pitch EG, Keyboard Level and Rate Scaling, Amplitude Modulation Sensitivity and Keyboard Velocity Sensitivity. All values are displayed in the range from 0 to 99 except AMD Sens which is 0 to 3, Key Velocity Sensitivity which is 0 to 7 and L and R Curve which is either + or - and L for linear or E for exponential.

3. Page 3

The following figure represents what is diplayed on the screen when you have selected Page 3.

```
Voice:Flute 1   Algorithm:1     Page 3
---------------------------------------
Mono/Poly   Mode:
---------------------------------------
Pitch Bend Range:   Step:
---------------------------------------
Port. Mode:         Gliss:     Time:
---------------------------------------
        Mod     Foot      Breath  After
       Wheel  Control   Control  Touch
---------------------------------------
Range:
Pitch:
Amp:
EG Bias:
---------------------------------------

Hit Crsr-Up or Crsr-> to Change Page
Hit <Spacebar> for Menu Of Options
```

These parameters are referred to as Function Parameters and they are global synthesizer controls NOT individual voice controls. Subsequently at this time there is not any way for the DATA/7 software to access this information without you performing the following steps:

1.) Locate and press the FUNCTION button on the DX7. It is just below and to the left of the LCD display on the DX7.

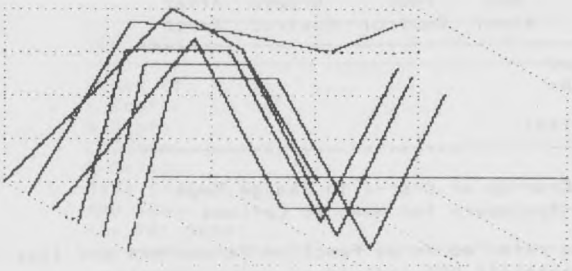
2.) Quickly (but not too fast) run your finger across the top row of buttons labeled 2 to 7 on the DX7.

3.) Repeat step 2 for the buttons numbered 17 to 32 on the bottom row.

4.) Now press the <RETURN> key on the computer keyboard and the correct data should appear on the screen. If it does not go back to the chapter on Setting Up and check to see that everything is in order.

4. Page 4

The following figure represents what is diplayed on the screen when you have selected Page 4.



```
Voice:Flute 1    Algorithm:1      Page 4
1 2 3 4 5 6 7
Hit Crsr-Up or Crsr-> to Change Page
Hit <Spacebar> for Menu Of Options
```

This is the hi-res graphic display of all 7 envelopes contained within the current voice. By pressing the 1 thru 7 keys on the Apple keyboard you may select which of the envelopes you wish to view. The envelope farthest from you towards the back of the monitor screen is Operator # 1 followed by 2, 3, etc. The envelope closest to you is the frequency envelope for that voice.

THE MENU

The following figure represents what is diplayed on the screen when you have selected the Menu by pressing the spacebar on the computer.

```
                    MENU
                    ----
Enter:
------

        <B> For Bank Options

        <C> For Disk Catalog

        <D> For Disk Commands

        <F> For Function Options

        <P> Printer Status On/Off

        <S> To Swap Instruments

        <V> For Voice Options

        <RETURN> to Exit

    Which ?:
```

This is the Main Command Menu. By pressing B, C, D, F, P, S, V, or the <RETURN> key on the computer you will gain access to the sub-menu you have selected. A detailed description of each sub-menu can be found in the next several pages.

VOICE OPTIONS

By pressing the <V> key on the computer from the main Menu the DATA/7 software will bring you to the Voice Option menu. The following figure represents what is displayed on the screen when you have selected Voice Options.

Voice Options

Enter:

<C> For Catalog

<L> To Load From Disk

<S> To Save To Disk

<T> To Transmit To DX7

<Return> To Exit

Which ?:

Pressing the <C> key on the computer will display all VOICE files on the diskette currently in the disk drive.

By pressing the <L> key on the computer you will be asked for the name of the voice to load from the diskette. Assuming the file is actually on the diskette simply type in the name of the file followed by pressing the <RETURN> key to load the file.

When you press the <S> key the computer will ask you for a name to save the current Voice that is in its memory. Simply type in a name up to 10 characters in length and then press the <Return> key. Of course there should be a diskette in the disk drive to store the voice on.

Pressing the <T> key will attempt to transmit whatever voice is currently in the computer to the edit memory buffer inside the DX7. Let's take a specific example to demonstrate what actually happens.

VOICE OPTIONS cont'd

Suppose that before you had hit the spacebar to get to the main Menu you had selected Voice #1 on the DX7 and that whatever page you had been on was showing you Voice:Flute. When you pressed the spacebar the Voice:Flute was in both the computers memory and the DX7s memory.

Now suppose you had selected the Voice Options by pressing <V> on the computer keyboard and then pressed <L> to load Voice:New into the computer. Now Voice:Flute is in the DX7 and Voice:New is in the computers memory. Assuming the Midi Channel=1 on the DX7 and that the Internal Memory Protect is OFF (see steps 4 snd 5 in Setting Up), If you now select <T> to transmit Voice:New into the DX7 the computer will transmit Voice:New into the DX7s edit memory buffer.

Now if you play the DX7 keyboard you will hear Voice:New being played from the edit memory buffer of the DX7 NOT from preset #1s buffer area. In order to save Voice:New into preset #1 you must perform the following steps...

1.) Locate and press the Internal Memory Select button just below and to the left of the LCD display of the DX7.

2.) Locate, press and hold down the orange colored Store button just above and to the left of the LCD and while holding it down press the #1 button just above and to the right of the LCD.

Voice:New has now been successfully stored in Preset #1 of the DX7s internal memory !!!

BANK OPTIONS

By pressing the <B> key on the computer from the main Menu the DATA/7 software will bring you to the Bank Option menu. The following figure represents what is displayed on the screen when you have selected Bank Options.

Bank Options

Enter:

<C> For Catalog

<D> to Display Voices

<L> To Load From Disk

<R> To Receive From DX7

<S> To Save To Disk

<T> To Transmit To DX7

<Return> To Exit

Which ?:

Pressing the <C> key on the computer will display all BANK files on the diskette currently in the disk drive.

By pressing the <L> key on the computer you will be asked for the name of the Bank to load from the diskette. Assuming the file is actually on the diskette simply type in the name of the file followed by pressing the <RETURN> key to load the file.

When you press the <S> key the computer will ask you for the name you wish to save the new Bank as. Type in the letters on the computer keyboard and then press the <RETURN> key. Of course there should be a diskette in the disk drive to store the Bank on.

Pressing the <R> key on the computer keyboard will attempt to receive a Bank of voices from the DX7. To get the DX7 to send the Bank information perform the following steps.

BANK OPTIONS cont'd

1.) Locate and press the orange Function button just below and to the left of the LCD display.

2.) Locate and press the #8 button on the DX7 and continue to press it until the LCD reads MIDI TRANSMIT ?.

3.) Locate and press the +1 (YES/ON) button just next to the data entry slider.

When the Bank transfer is complete the computer will display BANK DATA RECEIVED !!!. If the transfer was not successful the computer will still read READY TO RECEIVE DATA... Repeat step 3 listed above.

If the transfer was not completed and you still cannot get the Bank data into the computer hold the CTRL key on the computer and at the same time press the RUN/STOP key. This will cancel the receive process.

Pressing the <T> key will attempt to transmit whatever Bank is currently in the computer into the DX7. If you haven't loaded a Bank into the computer either from the diskette or from the DX7 the computer will display NO BANK IN MEMORY !!! You will then have to press the <RETURN> key on the computer to continue.

If the DX7 is not set to MIDI channel=1 then the transmit will not occur and the LCD display on the DX7 will read MIDI DATA ERROR! To set the MIDI channel correctly refer to steps 4 and 5 in the Setting Up section of this manual and then try again.

FUNCTION OPTIONS

Pressing the <F> key from the main Menu will bring you to the Function Options menu. The following figure represents what is displayed on the screen when you have selected Function Options.

Function Options

Enter:

<C> For Catalog

<L> To Load From Disk

<S> To Save To Disk

<T> To Transmit To DX7

<Return> To Exit

Which ?:

Pressing the <C> key on the computer will display all FUNCTION files on the diskette currently in the disk drive.

Pressing the <L> key on the computer will allow you to load a function file from the diskette. Simply type in the name of the file followed by pressing the <RETURN> key to load the file.

Pressing the <S> key the computer will allow you to save the current functions displayed on Page 3 to the diskette. Type the characters in on the computer keyboard and then press the <Return> key. This will save a FUNCTION file on the diskette. If you do not wish to save a file simply press the <RETURN> key without previously entering a file name. By saving different FUNCTION files you can painlessly change your DX7s function parameters such as POLY/MONO mode or PITCH BEND STEP or PORTAMENTO.

Pressing the <T> key will transmit whatever Functions are currently in the computer to DX7. If you had not loaded a FUNCTION file from the disk or you had not manually entered in the function parameters as described in Page 3 you will reset all of the function parameters to zero since no functions were in the computers memory. Therefore it is advisable that you save a FUNCTION file of all the function parameters that you had in the DX7 before you starting using the DATA/7 software for the very first time. Once you had this information on diskette it would always be retreivable at a later session.

SWAP INSTRUMENTS

By pressing the <S> key on the computer from the main Menu the DATA/7 software will bring you to the Swap menu. The following figure represents what is displayed on the screen when you have selected Swap.

```
                Swap Instruments
                ----------------

          1.) FLUTE     1   17.) HARPSCH  1
          2.)               18.)
          3.)               19.)
          4.)               20.)
          .                 .
          .                 .
          .                 .
          .                 .
          .                 .
          .                 .
         16.) PIANO     2   32.) THUNDER

     Enter 1st Instrument:
```

Suppose you wanted to swap instruments #1 and #32. When you see the above prompt you would press the <1> key followed by the <RETURN> key on the computer.

Next you would see:

Enter 2nd Instrument:

Now you would press <3> then <2> and then the <RETURN> key. The computer will now exchange the two instruments and re-display them on the monitor screen in their new order. If you wish to abort the SWAP process at either prompt simply press the <RETURN> key and you will exit this mode.

An important point to remember is that you are ONLY re-organizing the voices in the BANK that is in the computers memory !!!. You are NOT changing any data inside the DX7. If you wanted to send the newly ordered BANK to the DX7 you would have to exit the SWAP mode and transmit the BANK from the Bank Options menu.

PRINTER OPTIONS

By pressing the <P> key on the computer from the main Menu the DATA/7 software will allow you to turn a printer on or off. Each time you press the <P> key the word ON or OFF in the main Menu will change. Normally the letters of the words on your monitor or T.V. are white characters on a black background. You will be able to tell whether the printer status is on or off by by which word is displayed in inverse video on your monitor. Therefore if you see the word OFF as black characters on a white background, you will know the printer is OFF. if you see the word ON as black characters on a white background then you know the printer is ON.

When the printer status is on, Pages 1, 2, 3, and the Display Voices page from the Bank Options menu will print on your printer. When you select one of these pages while the printer status is ON, the monitor or T.V. will be displayed first as usual, then the computer will send the same information to your printer.

While the data is being sent to the printer, the computer CANNOT recognize any commands you type on the C-64 keyboard. Therefore PLEASE WAIT UNTIL THE PRINTER IS FINISHED PRINTING before you try to enter in any new commands to the program !!!

Finally, what happens if you tell the program that the printer status is ON and YOU DON'T HAVE A PRINTER CONNECTED TO THE COMPUTER ??? Well, the program will try to send the data anyway and you will probably wind up LOCKING UP THE COMPUTER !!! If this happens to you, hold the <CTRL> key and at the same time press the <RUN/STOP> key on the computer. This will reset the program to Page 1 and disable the printer.

DISKING

This section of the manual will attempt to explain in a rather simple manner some of the things you may want to do with your diskettes. Later in this section we will cover the steps involved for you to 'NEW' your own diskettes for data storage.

First your DATA/7 diskette is copy protected. This means that you are UNABLE to make your own backup copies using-off-the-shelf copy programs. To receive a backup copy of DATA/7 at no charge you must fill out and return the warranty card found in the back of this manual and include a copy of your sales receipt. If for any reason you need a replacement either for the original copy or the backup at a later date please see the Warranty section of this manual.

A single diskette holds 35 tracks of a varying number of sectors each of which contains 256 bytes. You may access 664 of these sectors giving a total of 169,984 bytes on a diskette. A sector is also referred to as a BLOCK.

Your DATA/7 diskette will allow you to store 32 BANK files. A blank data disk would allow you to store a maximum of 39 BANK files. An explation of the procedure to create 'blank' diskettes can be found at the end of this section.

It is very important that you take proper care of your diskette otherwise you will risk losing parts of your banks or possibly destroy the entire diskette !!!

1.) Never place your diskettes near anything magnetic like speakers, video monitors, T.V.s or any equipment that uses electricity.

2.) Don't bend or otherwise mutilate them or allow them to get dirty or wet.

3.) Never touch the small oval cutout on the bottom of the diskette with your fingers.

Treat your diskettes as you would a master 2 inch tape master. A little precaution will save you a lot of grief.....

DISKING cont'd

From the MENU you have 2 Disk Options. The first is to display the catalog of the disk currently in the disk drive. Simply press the <C> key on the computer. You will be prompted to hit return when the computer has finished showing you all the files on the disk. The files you will be concerned with will be Voice files, Bank files and Function files. A voice file will appear as VNAME.C where NAME is the name you told the computer to save it as. A Bank file will appear as BNAME.C also using the name you selected to save it as. A fuction file will appear as FNAME.C Anything else on the disk is concerned with program operation and should NEVER be tampered with or altered by you in any fashion !!!

Again from the main MENU you may press the <D> key to select the DELETE a file option. After you have selected the delete option you will see:

Name Of File To Delete:

At this point the computer needs to know which file on the disk you want to delete. Let's say you had the following files on your disk and you wanted to delete them all.

```
VFLUTE1.C      (this is a VOICE file)
BSTRINGS.C     (this is a BANK file)
FPOLY.C        (this is a function file)
```

Since the file to be deleted could be of any kind, the first character you type in should be EITHER a V or B or F. If we were going to delete the FLUTE1 Voice file we would type in:

VFLUTE1

and then press the <RETURN> key. It is not necessary for you to type in the .C at the end of the name because the program will add that automatically after you have typed in the name. The disk will start to spin, find the file and delete it. Once a file is deleted IT IS GONE FOREVER !!! Now we could delete the remaining files by supplying the names:

BSTRINGS <Return> and then
FPOLY <Return>

All three files would now be deleted from the disk.

If you want more information on your disk drive,please refer to your computers owners manual.

DISKING cont'd

The final area of Disking we will cover is how to create and initialize your own diskettes so you can save Voices and Banks to them. Following the instructions below on a disk that already has data of any kind on it WILL COMPLETELY DESTROY THE PREVIOUS DATA ON THAT DISK !!! When in doubt, Catalog that disk first to avoid a disaster ! The following steps are intended to be done on a BLANK diskette !

1.) Turn on your monitor, printer and disk drive.

2.) Turn on your computer.

3.) Insert your VIC-1541 Test/Demo diskette into your disk drive and close the drive door.

4.) Type in the following commands:

LOAD "C-64 WEDGE",8 and press the <RETURN> key

After the disk is finished loading type in:

RUN and press the <RETURN> key

5.) Remove your Test/Demo diskette and insert the disk you wish to 'NEW'. Be sure that the write-protect notch on the diskette is NOT covered. Now you are ready to 'NEW' the disk. You must supply a name (up to 16 characters in length) and a disk ID (2 characters long). We'll use the name 'TESTNEW' and an ID of XX in this example. Type in the following command:

>NEW:TESTNEW,XX

The disk will start to spin and in about a minute the diskette will be 'NEWED'. If you want more information about the operation of your disk drive, please refer to your user's manual for details.

From time to time you should make a backup copy of your voice/bank diskettes by using a COPY program and keep the backup copy in a SAFE place in case you accidentally destroy or lose the original. Writing the date you made the backup will help you remember when it was made and what it contains.

FILE NAMES AND OTHER CONVENTIONS

This section of the manual will cover various restrictions of the language that DATA/7 was written in and how they affect your use of the program.

1.) When choosing a name to save any type of file, you must choose a name that has at least 2 but not more than 10 characters. The name may ONLY contain the characters A - Z, 0 - 9, SPACES and the LEFT ARROW key.

2.) If you use spaces in your file names they are automatically converted to left arrows (<--) as the spaces themselves are actually illegal in file names. When you load a file that contains left arrows, you may still type in spaces from the C-64 keyboard because they will be converted to left arrows by the DATA/7 program before the disk is accessed. You may use the left arrow key if you wish.

3.) All alphabetic characters that you select for file names will be converted to uppercase. You may at any time type in lowercase letters but they will be converted to uppercase before the disk drive is accessed.

4.) There is a 'CIRCULAR BUFFER' in the program that always remembers the names of the files that you select. By pressing and holding the <CTRL> key and simultaneously pressing the <B> key, the program will re-display the most recent name you typed in. For example, let's assume you loaded a voice named VVV, then loaded a bank named BBB, then loaded a function named FFF, and then you choose to save a bank file. While you are viewing the SAVE BANK: prompt, if you press <CTRL> and <B> you would see FFF displayed as the name to save. Pressing <CTRL> and <B> again would display BBB and pressing <CTRL> and <B> a third time would display VVV. If you continue to press <CTRL> and <B>, you would see the same three files names loop around and around forever.

5.) The name you select to save a voice file to disk, IS ONLY USED FOR THE DISK ITSELF. For example, if you save a voice with an internal DX7 name of MYSTRINGS as a disk file named NEWSOUND, when you re-load and transmit NEWSOUND to the DX7, the LCD of the DX7 will display MYSTRINGS.

6.) Use the INST/DEL key on the C-64 to erase unwanted characters from the name you type in for any file access.

SUMMARY OF COMMANDS

The following list represents all commands recognized by the DATA/7 software from the computer and the DX7.

COMMAND	COMPUTER	DX7
Change PAGE	CRSR-UP / CRSR ->	When Mod Wheel=100% Hit key C1=PAGE 1 " " C#1=PAGE 2 " " D1=PAGE 3 " " D#1=PAGE 4
Catalog Disk	Press <?> from PAGE only	N/A
Refresh Current PAGE	Press <RETURN>	Press Portamento Peda
**********		
Select MENU	Press <SPACEBAR> from PAGE	N/A
" Catalog	Press <C> from MENU	N/A
Delete Files	Press <D> " "	N/A
Toggle Printer	Press <P> " "	N/A
Swap Voices	Press <S> " "	N/A
**********		
Select Func. Options	Press <F> " "	N/A
Catalog Functions	Press <C> from Function	N/A
Load a Function	Press <L> " "	N/A
Save a Function	Press <S> " "	N/A
Transmit a Function	Press <T> " "	N/A

SUMMARY OF COMMANDS cont'd

COMMAND	COMPUTER	DX7
Select Voice Options	Press <V> from MENU	N/A
Catalog Voices	Press <C> from Voice Options	N/A
Load a Voice	Press <L> " " "	N/A
Save a Voice	Press <S> " " "	N/A
Transmit a Voice From Computer to DX7	Press <T> " " "	N/A
**********		
Select Bank Options	Press <B> from MENU	N/A
Catalog Banks	Press <C> from Bank Options	
Display voices	Press <D> " " "	N/A
Load a Bank	Press <L> " "	N/A
Save a Bank	Press <S> " " "	N/A
Receive a Bank From DX7 to Computer	Press <R> " " "	N/A
Transmit a Bank From Computer to DX7	Press <T> " " "	N/A
**********		
Change Parameter Value	N/A	Press +1 or -1 Data Entry key
Change Voice and Update PAGE	N/A	Press 1 - 32 In PAGE Mode only

SUMMARY OF COMMANDS cont'd

Some important points to remember:

1.) When the program is in the PAGE mode it is looking for messages from the DX7 such as instrument or parameter changes, or PAGE control changes. As soon as you select the main MENU or any of the sub-menus the program STOPS looking at the DX7 and is waiting for you to enter instructions from the computer keyboard.

For example, if you selected the main MENU and then selected a new instrument on the DX7, when you returned to the PAGE mode the screen will display the PREVIOUS instruments data and not the new data. You would have to re-select the new instrument again from the PAGE mode to see the new data.

2.) The Data Entry slider on the DX7 DOES NOT send data to the program in the PAGE mode. If you are changing parameter values with the slider you would have to press the +1 or -1 buttons on the DX7 to actually send the new values and then press the portamento pedal or press the <RETURN> key on the computer to update the screen !!!

3.) The program has no way of knowing whether the memory protect on the DX7 is on or off. Either turn off the memory protect when you initially boot up the program or check it BEFORE you try to transmit voices or banks from the computer to the DX7

Closing Comments

DATA/7 was developed as a tool for the DX7s instrument definition capabilities and to provide an inexpensive system to archive individual voices and banks of instruments. It is not intended to replace the DX7s instrument creation capabilities but rather to enhance them. In addition, the banks that DATA/7 allow you to store on your diskettes will be transportable to the PERFORMANCE/7.

PERFORMANCE/7 will allow you to have 9 banks (288 instruments) loaded inside the computers memory and to be able to transmit any one of them to the DX7 instantly in live performance or expensive studio applications. This will eliminate the need for purchasing expensive data cartridges and locating them in time critical situations.

DATA/7 is the first of many software packages planned by Mimetics Corp. Your comments on the general operation of the software and features or products you would like to see in the future are always welcome. If new revisions of software packages are released Mimetics Corp. will make them available to registered owners whose warranty cards are on file for a nominal charge. In this way you can be certain that the latest revision with the most features will always be available to you at very little expense.

The DATA/7 software package is copy protected. This means that you will be unable to copy the diskette with standard copy programs.

We cannot overemphasize the importance of keeping a backup diskette which contains all your Voice, Function, and BANK files. Anytime you SAVE a file to your DATA/7 diskette you should also IMMEDIATELY save that file to your backup diskette. A detailed procedure on how to make a backup diskette is described in the DISKING section of this manual.

To receive a FREE backup copy of DATA/7 you MUST return the warranty card with a copy of your receipt as proof of purchase Please allow 3 to 6 weeks for delivery.

Appendix

These tables represent the key and octave information displayed on the DX7 in relation to the numbers presented by the DATA/7 software for the following parameters.

KEY TRANSPOSE VALUES

Key	Octave				
	1	2	3	4	5
C	0	12	24	36	48
C#	1	13	25	37	-
D	2	14	26	38	-
D#	3	15	27	39	-
E	4	16	28	40	-
F	5	17	29	41	-
F#	6	18	30	42	-
G	7	19	31	43	-
G#	8	20	32	44	-
A	9	21	33	45	-
A#	10	22	34	46	-
B	11	23	35	47	-

BREAK POINT VALUES

Key	Octave								
	-1	0	1	2	3	4	5	6	7	8
C	-	3	15	27	39	51	63	75	87	99
C#	-	4	16	28	40	52	64	76	88	-
D	-	5	17	29	41	53	65	77	89	-
D#	-	6	18	30	42	54	66	78	90	-
E	-	7	19	31	43	55	67	79	91	-
F	-	8	20	32	44	56	68	80	92	-
F#	-	9	21	33	45	57	69	81	93	-
G	-	10	22	34	46	58	70	82	94	-
G#	-	11	23	35	47	59	71	83	95	-
A	0	12	24	36	48	60	72	84	96	-
A#	1	13	25	37	49	61	73	85	97	-
B	2	14	26	38	50	62	74	86	98	-

DATA/7 WARRANTY CARD

Name.....

Address.....

City..... State..... Zip.....

Place of Purchase.....

Computer owned.....

Interface card type.....

Other software you would like to see.....

.....

.....

.....

Complete this form and mail it to:

Mimetics Corp.
P.O. Box 60238
Station A
Palo Alto, Ca. 94306

You must return this warranty card to receive your FREE backup copy and to register for your warranty status !!!

DATA™

```
VOICE:    NAMI 1    ALGORITHM:13    PAGE 1

OPER.     EG RATE        EG LEVEL       OPER.
 #.     1  2  3  4     1  2  3  4      OUT LVL
-------------------------------------------------
  1     1 36 32 27    58 99 75 0          99
  2     1  1  7 27    99 93 82 99         99
  3    50 13 15 25    33 98 0  0          99
  4    54 99 11 26    99 99 0  89         99
  5    59 99 14 28    99 99 0  92         99
  6    56 99 9  28    99 99 0  90         99
-------------------------------------------------
OSC  OSC OSC OSC
MODE F.C F.F D.T     LFO       MISC.
-------------------------------------------------
FREQ   0.67  -7      SPD  99 OSC SYNC OFF
FREQ   0.51   7      DLY  0  FEEDBACK  7
FREQ   0.50   0      PMD  0  PMD SENS  3
FREQ   0.57   0      AMD  80 TRANSPOSE 24
FREQ   0.79   0      SYNC ON
FREQ   0.73   0      WAVE TRIANGLE
```

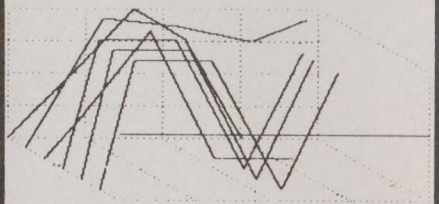
* *Instantly displays and saves all voice parameters*
* *Provides high speed storage and retrieval system for cataloging preset information*
* *Contains printing feature for parameter listings*

```
VOICE:    NAMI 1    ALGORITHM:13    PAGE 2

        PITCH RATE      PITCH LEVEL
        1  2  3  4      1  2  3  4
-------------------------------------------------
        62 25 99 99     50 50 50 50
-------------------------------------------------
OPERATOR:          1   2   3   4   5   6
-------------------------------------------------
BREAK PT:          0   0   0   0   0   0
L DEPTH:           0   0   0   0   0   0
R DEPTH:           0   0   0   0   0   0
L CURVE:          -L  -L  -L  -L  -L  -L
R CURVE:          -L  -L  -L  -L  -L  -L
RATE SCALE:        0   0   0   0   0   0
AMD SENS:          0   3   0   0   0   0
KEY VEL SENS:      1   1   2   0   0   0
```

* *Displays and saves all function parameters*
* *Displays all instruments contained in a bank of 32*
* *Utilizes easy to understand self-prompting menus*

```
VOICE:    NAMI 1    ALGORITHM:13    PAGE 3

MONO/POLY    MODE:POLY
-------------------------------------------------
PITCH BEND RANGE:0      STEP:0
-------------------------------------------------
PORT. MODE:RETAIN       GLISS:OFF TIME:0
-------------------------------------------------
          MOD      FOOT      BREATH    AFTER
         WHEEL    CONTROL    CONTROL   TOUCH
-------------------------------------------------
RANGE:    0         0         0         0
PITCH:    OFF       OFF       OFF       OFF
AMP:      OFF       OFF       OFF       OFF
EG BIAS   OFF       OFF       OFF       OFF
```

* *SWAPPER mode allows reorganization of voices within a bank*
* *Stores up to 27 banks of 32 voices on a single diskette*
* *Displays hi-res 3D graphics of seven envelopes of operator and frequency information*



```
VOICE:    NAMI 1    ALGORITHM:13    PAGE 4
 1 2 3 4 5 6 7
HIT <--OR--> TO CHANGE MENU
HIT <SPACE BAR> FOR MENU OF OPTIONS
```

* *Available for:*

Apple II series computers with Roland MPU-401 or with Yamaha MIDI interface card

Commodore 64 with Yamaha MIDI interface card

IBM with Roland MPU-401

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